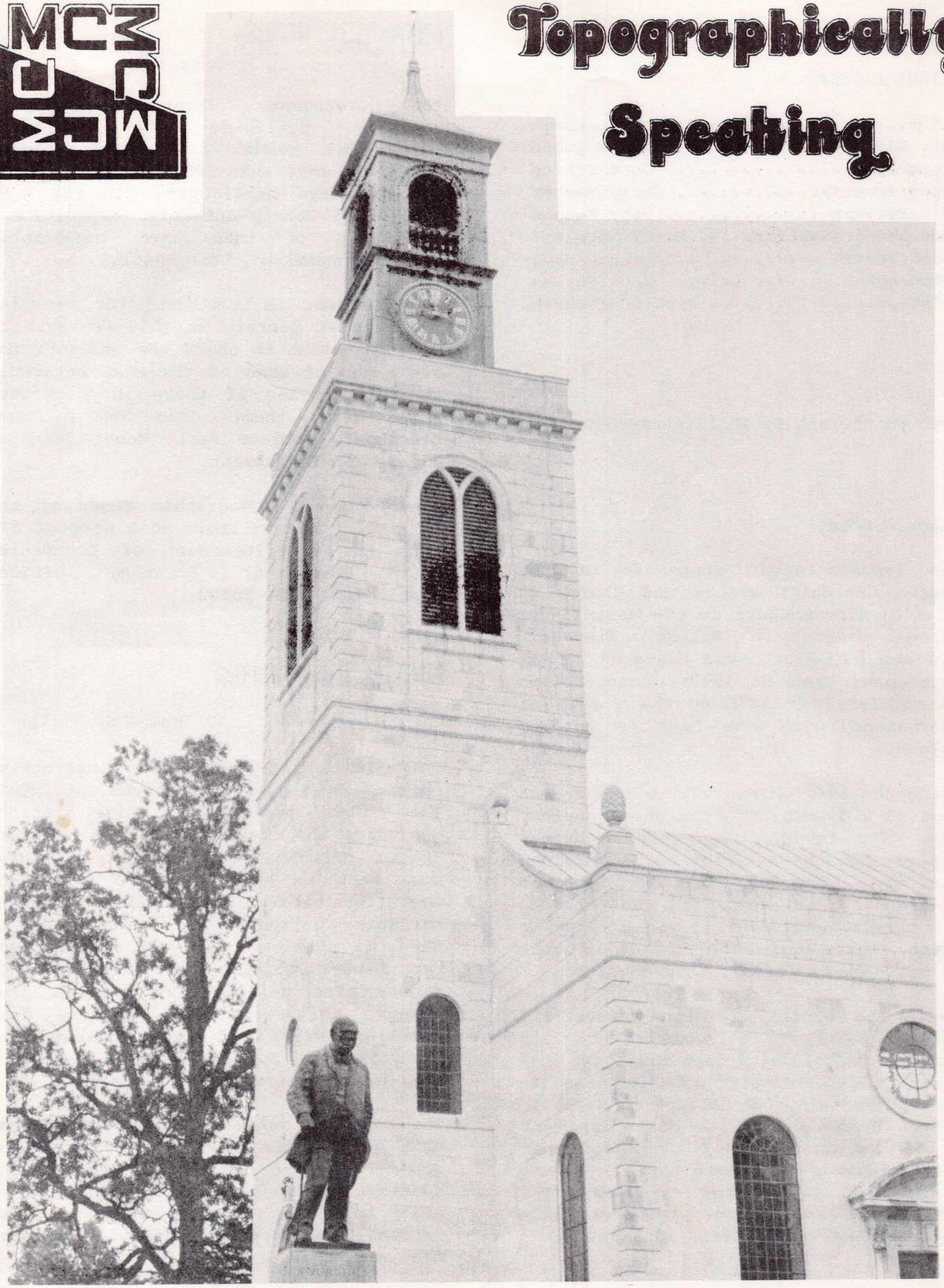
Topographically Speaking



JAN.-FEB.-MAR. 1982 | GEOLOGICAL SURVEY, NATIONAL MAPPING DIVISION | 1400 Independence Road, Rolla, Missouri 65401 | VOL. 5 No. 2

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Photogrammetry..... Jerry Wagner
Field Surveys..... Tony Keepes
Plans and Production..... Marty Moreland
Illustrator..... Roxanne Hays
Photographer..... Jack Forbes
Typist..... Jackie Paterson

Cover photograph by Phillip Lampert

Editor's Note:

This issue's cover photo is of the Winston Churchill statue and Church of St. Mary Aldermanbury on the Westminster College campus in Fulton, Missouri. This historic church was designed by Sir Christopher Wren in 1667. Construction was completed in 1676 at the corner of Aldermanbury and Love Lane in London, England.

During the 1940 German blitz, the church received a direct hit from an incendiary bomb. The interior was totally gutted by fire, but the exterior walls remained standing. The 700 tons of Portland limestone, that comprise the church, were carefully dismantled and shipped to Fulton, where the building was rebuilt and restored to its original condition.

Today, the church and its museum and library stand as a memorial to Sir Winston Churchill, commemorating the former Prime Minister and his historic visit to Westminister College on March 5, 1946. Churchill came to Westminster at the invitation of the college and then President Harry S. Truman to deliver one of his most significant speeches, "The Sinews of Peace," now more commonly known as "The Iron Curtain Address."

ANTARCTIC NAMES

by Roxanne Hays

The Government Printing Office has recently published the gazeteer, "Geographic Names of the Antarctic." There are more than 100 employees of the NMD who have participated in the U.S. Geological Survey Antarctic expeditions, and many of them have topographic features named in their honor.

The gazeteer is available for browsing in the NCIC library at this Center. It is interesting to check the gazeteer for the names of some of the MCMC Antarctic veterans to see if there is a feature named after them. There is a Mount Eissinger, Robison Peak, Mount Southern and Bermel Escarpment.

The gazeteer, "Geographic Names of the Antarctic" is available at a cost of $14 from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402

DIGITAL DATA EDITING

by Thomas C. Miller

One year ago September, an interactive editing system was received at MCMC. The system, replete with five stations including the master console, has interactive graphics capabilities at three work stations and permits a myriad of operations from a menu selection. The hardware configuration, in addition to the work stations, includes a dry-silver type hard copy unit and a 900 line-per-minute line printer. The central processing unit, two 300 megabyte disk storage devices and three dual-density tape drives, round out the system, a full-blown minicomputer in itself.

The software delivered with the digital data edit system (DDES) is designed for general purpose interactive design and editing. Therefore, in order that it might be used in digital mapping applications, considerable software development was necessary.

When the DDES came to MCMC, no software existed for it which would enable data to be read into the system from any other source nor could it be removed again in a way that permitted the data to be plotted. After a great deal of software development, these operations are now a reality. Applications utilities and translator routines, along with some menu activated user commands, were written by the Technology Office and interactive editing began.

While this software development was underway, the DDES was utilized for a number of applications. Among these were attempts to produce various products such as geodetic control diagrams and Advance Materials Indexes. Of noteworthy accomplishment is the generation of an up to date Kansas Topographic Sales Index.

Interactive editing activity first began on contour data that was collected on a manual digitizer table for the purpose of constructing Digital Elevation Models (DEM). These files required a visual review for elements that would produce erroneous results in the DEM, then interactively correct the feature.

This editing was soon completed and the experience paved the way for interactively editing contour files from stereomodel digital compilation. To date, about 25 digital quadrangle files have been sufficiently edited for the production of DEM's.

Research in data editing for the generation of totally digitally derived map separates has been underway since 1977 at MCMC, beginning with stereomodel digital compilation in the Branch of Photogrammetry. The first interactive editing of the data was done on a DDES in Reston, Virginia, then, with the acquisition of the interactive editing system at MCMC, development accelerated.

Other categories than contours are now edited for enhancement of the data to bring it to a point that the files can be plotted automatically for reproduction quality map separate negatives. Once corrections are completed, and the aesthetic touch has been applied, a tape is generated which drives the automatic plotter. The map separates are individually plotted on film and can be produced either as a right reading positive, from which the left reading reproduction negative is made, or the files can be plotted directly as a left reading negative.

Menu commands enable the editor to perform many types of editing and design, including the addition or deletion of feature segments or an entire element within the file.

A particularly exciting possibility is the interactive placement of map lettering which, when plotted on film, results in a lettering positive. User commands have been written for the DDES which allow an editor-operator to completely letter the map, thus no type order or stickup operation is needed. The commands available to the editor not only assist in the type placement but automatically selects the correct style and size.

Interactive lettering is of special interest with the advent of the Provisional Map. The cost savings in manhours can substantially aid the reduction of time required for the map editing phases.

Future uses of the DDES will depend to some extent on the funding for digital mapping, but many applications are not dependent upon digital funding and may be just as important. The most efficient use of the system is round-the-clock operation and it is conceivable that this could be a reality in the not too distant future.

PUBLISHED MAPS PREPARED BY MCMC

by John Conroy

The map most commonly associated with the USGS is the standard 7.5-minute topographic quadrangle, which has served as the base series for the United States since the 1950's. Map coverage of the 14 States in the Mid-Continent region by this series is now over 80% finished, with the expected completion of the program coming in a few short years.

While most of our attention has been on the 7.5-minute series, a large number of diverse maps have been developed and published on a regular basis over the last few years.

The maps MCMC makes can be roughly divided into four main groups: 7.5-minute maps, 15-minute maps, 100K maps, and special maps. A recent inventory of map products reveals that there are 27 variations, combinations, and formats represented within these groups.

The first major group of maps includes the standard 7.5-minute topographic maps, combined topographic-bathymetric quads, and the new provisional maps. Each of these three maps can be prepared using either customary or metric units. The Survey also prepares a 7.5x15-minute metric map to supplement the 7.5-minute program. MCMC makes two kinds of photoimagery products: orthophotoquads, and orthophotomaps. Orthophotomaps contain topographic information and can be prepared using either the customary or metric format. The reprint and revision programs have been growing in recent years. There are three kinds of revised maps: full, partial, and photorevisions.

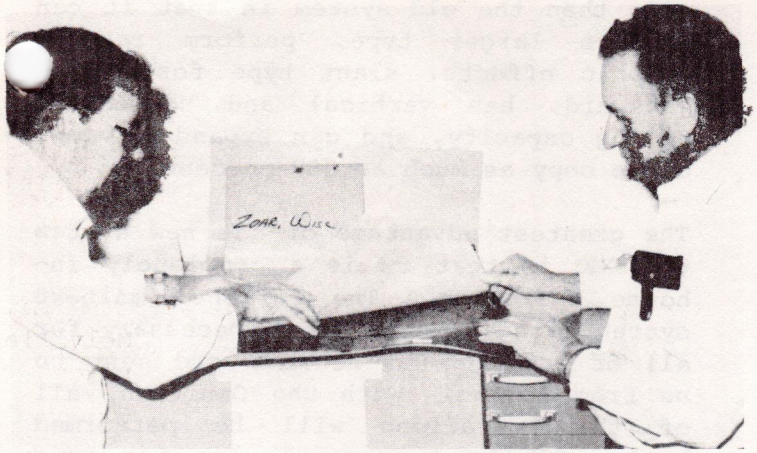
There are four kinds of 15-minute maps that are prepared by MCMC: The metric Defense Mapping Agency maps, series conversions from 7.5-minute maps, reprints of the standard 1:62,500-scale maps, and photorevisions of the 1:62,500-scale maps.

The 1:100,000-scale series contains five types of metric maps: a planimetric county map prepared for the Soil Conservation Service, a USGS topographic county map, a USGS 30x60-minute topographic quadrangle, a planimetric 30x60-minute map made for the Bureau of Land Management, and a topographic-bathymetric 30x60-minute quadrangle made for the National Ocean Survey.

Special maps made at MCMC include National Park maps, LU/LC maps, revised State base maps, and the 7.5-minute metric Saudi Arabian quadrangles.

Published Maps Prepared by MCMC and their Formats

	(Format) Customary	Metric
7.5' Maps		
Topo	X	X
Topo-Bathy	X	X
Provisional	X	X
7.5'x15'		X
Orthoquads		
Orthomaps	X	X
Reprints	X	
Revisions-		
Full	X	
Partial	X	
Photo	X	
15' Maps		
DMA		X
Series Conv	X	
Reprint	X	
Photo Revis	X	
100K Maps		
SCS Co		X
Co Topo		X
30'x60' Topo		X
30'x60' BLM		X
30'x60' Topo-		
Bathy		X
Special Maps		
Nat'l Parks		X
LU/LC		X
Rev St Bases	X	
Saudi 7.5'		X



THE END

by Charlie Croom

Pictured above is Claude Summers (left) and Ken Hudgens (right) from NCIC inventorying the last quadrangle listed in the MCMC 19,111 quadrangles. The project was started in August 1979 and was finished in January 1982. During this period of time, 14,722 maps jackets were actually inventoried. The remaining 4,389 quadrangles have not been mapped yet, or they are in some stage of the mapping process.

The objective of the inventory was to discard all material which was obsolete and to record the remaining material into the Map Separates Information System (MSIS). At first, this appeared to be an unsurmountable task because of the changes in mapping procedures from the late 1880's to the present. All metal mounts had to be checked to determine if a reproducible film was available, separates were checked to select the most up-to-date ones and discard the older ones. The quadbooks were checked for pertinent information. Field envelopes were checked and all duplicate and obsolete material discarded.

All reproducible mapping material from the MCMC is now on computer tapes and is available in computer printout form or on microfiche. This Mapping Center is the first Center to complete this project.

Claude and Ken's first quadrangle was the Abbott, Arkansas, quadrangle. Two years and four months later the last quadrangle in the MCMC listing, Zora, Wisconsin, was inventoried. Both Claude and Ken are to be congratulated for perfoming an excellent job which was long, trying, and at times very tedious.

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CAMP LIGHT MANTLES RADIOACTIVE

Anyone using mantle-type camping lanterns should be aware of the fact that the small mantles on these lanterns could pose a health hazard, particularly if ingested. Recent tests have found the mantles to contain low level radioactive material.

The mantles are produced from silk and cotton fiber and are coated with Thorium, a radioactive substance which comes from the same ore as Uranium. The Thorium coated mantles pose a danger if the substance is ingested. Walt Wagner, a Veterans Administration Health Physicist, says that if a young child would happen to put one into its mouth, it could result in significant radiation exposure.

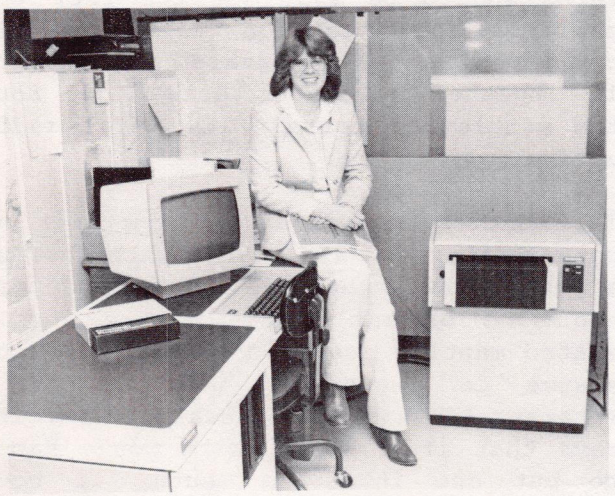
The lantern mantles generally come packaged two per bag. They must be tied around a flammable liquid receptacle inside the lantern. After being secured to one or two vapor emitting shafts, the mantles are burned with a match. After the burning process, the mantles shrink, firm-up into white mesh globes and become highly susceptible to breakage, even though protected by a glass cover.

Employees who come into contact with such lanterns, either in field work or at home, should take a few precautions to prevent ingestion of these Thorium coated mantles. Replacement mantles and pieces of broken mantles should be kept out of the reach of children. Anyone who handles the mantles should wash their hands thoroughly afterwards, or at least keep their hands away from their mouth.

OMNITECH TYPESETTING SYSTEM SOON TO BE USED BY CARTOGRAPHY

by John Conroy

The Branch of Cartography will soon begin producing map type using a laser typesetter that is considered to be the state-of-the-art. The new system is called the Omnitech/2100 and was made by the Mergenthaler Linotype Company of Melville, New York. This system replaces the photoelements of the present Omnitext/1500 now being used with laser scan and digitized fonts.



Typesetter operator Hylan Beydler and the new Omnitech/2100.

The front end of the Omnitech consists of a keyboard, two disk drives, four microprocessors, and a moveable video display terminal where the operator can observe the data as it is keyed in.

The back end of the system consists of a recorder and a processor. The recorder is a laser typesetting electrographic process. A galvanometer directs a helium-neon laser beam that performs a raster scan of either film or zinc-oxide coated paper, in accordance with the keyed-in information. The film or paper is then transferred to a scroll automatic processor that fixes and develops the image. The Photolab will make the positive film of the type, which will be given a wax backing to complete the process.

The new Omnitech system is more versatile than the old system in that it can produce larger type, perform reverse graphic effects, slant type forward or backward, has vertical and horizontal ruling capacity, and can expand or condense copy as much as 300 percent.

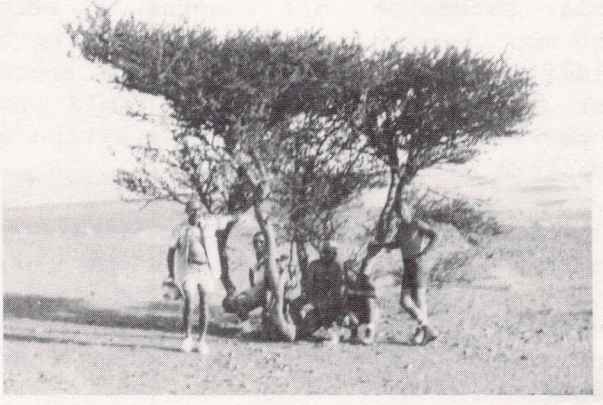
The greatest advantage of the new system to MCMC is that it is a completely in-house operation. The current Omnitext system being used makes it necessary for all of our type to be made and sent to us from Reston. With the Omnitech, all of the operations will be performed here, and the turnaround rate for type will be reduced.

JIDDAH MAPPING PROJECT

by Dave Bennett

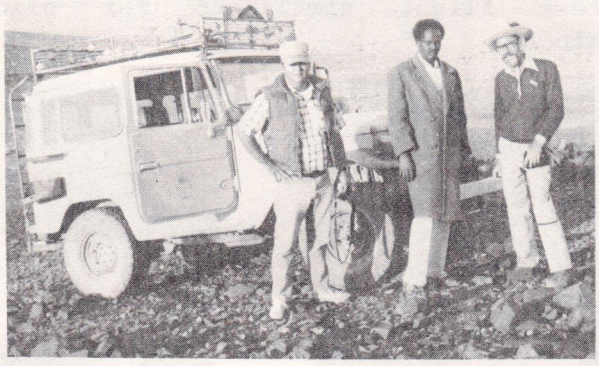
The Jiddah Mapping Project field party arrived in Jiddah, Saudi Arabia, late in the afternoon on October 23, 1981. Fred Fuller, Acting Project Chief and Curt and Hilda Meyers met the five of us, Dave Bennett, Bill Harris, Jerry O'Brien, Dick Pirtle and Jack Turner at Jiddah International Airport. Curt was formerly Chief of the MCMC Photo Lab.

Our first real taste of Saudi Arabia came when we left the air-conditioned airport terminal building, and stepped into the steambath climate of the Jiddah outdoors. The trip to the parking lot left us dripping. Our next stop was the TDY House, a sort of boarding house for USGS people in Jiddah.



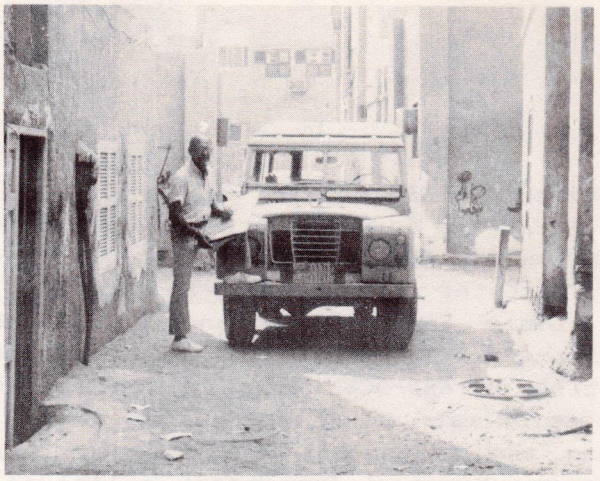
The next morning, Fred picked us up and took us to the USGS Mission Office where we met other Survey employees with whom we would be working on the project.

We were then driven down to the General Hospital to obtain our Saudi drivers license. It was not long before we found out why we had come to a hospital for the license. We were marched into a room, asked to extend our arm through a hole in the wall and contributed one pint of blood to the hospital's blood bank.



After securing a drivers license, a field vehicle was assigned to each of us and the second real trauma we were to experience began to unfold. We lined up to follow Fred from the Mission Office to the Globe Building where our offices were located. Little did we realize that this trip led through "Kamikaze Corner", one of the most dangerous intersections in town. We arrived at the Globe a few minutes later in a state of shock, but secure in the knowledge that it couldn't get much worse.

The field operations began and our field assistants were hired. Work hours for the assistants were from 7:30 to 2:30 with a prayer break around noon. The schedule required some adjustment on our part, but soon became routine. Field-work was similar to what might have been performed on a normal project here, but the conditions under which it was done seldom were what we expected.



Conditions ranged from remote desert areas to rush hour in the middle of a huge city. Horns honked incessantly, people chattered in many languages, and we saw sights we had seen before only in the pages of the National Geographic. In contrast, there were days when we went all day without seeing a soul or hearing anything but the wind.

Our free time was taken up by lounging at the USGS pool and recreation center, shopping in the Suq (the market place), snorkeling in the Red Sea, and sight-seeing around the area. We all enjoyed the excitement of the trip and the many friends and experiences we shared, but we were eager to return to MCMC and our families back here.

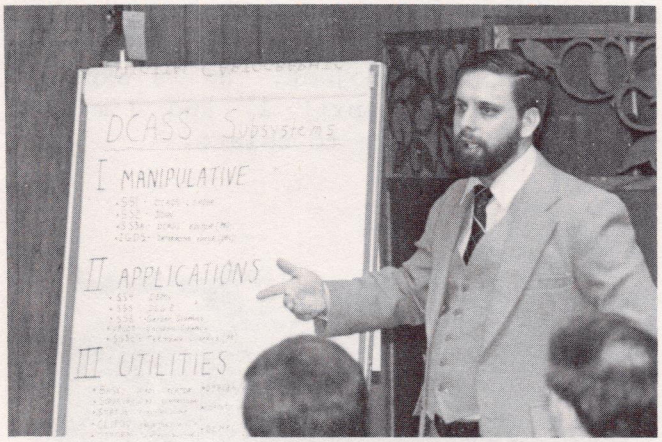
Jerry O'Brien remained behind to perform doppler satellite control work for another mapping project. He is expected to return about April 1, and I'm sure will have much more to relate.

ASP

by Jerry Wagner

A joint ASP-ACSM meeting was held November 18 at the Lions Club Den. In attendance were members of the Rolla Region-ASP, Greater Rolla Area Section-ACSM, St. Louis Section-ACSM and St. Louis Region-ASP. This was the largest joint meeting of ASP-ACSM held in Rolla with an approximate total attendance of 140. Among the attendees were five members from the Missouri Department of Natural Resources, 12 members from the University of Missiour-Rolla, and 46 members made the trip from the Defense Mapping Agency Aerospace Center, St. Louis, Missouri.

Before the formal program, a tour of MCMC facilities was given to those from the St. Louis Region-ASP and the St. Louis Section-ACSM. The tour began in the main conference room where the guests were welcomed by Mr. Larry Borgerding, Chief, MCMC, and shown the variety of products available from the USGS. The tour concentrated on MCMC's DLG production, stereomodel digitizing, and the Digital Cartographic Software System (DCASS). The meeting then moved to the Lions Club Den for a social hour, refreshments, and the main program.



Ken Boyko explaining DCASS

Mr. Ken Boyko, Supervisory Cartographer, MCMC, was the first speaker of the evening. He gave a talk on the Digital Cartographic Software System (DCASS) used in stereomodel digitization processing at MCMC, and brought listeners up to date on the status of the system.

Dr. Marshall Faintich, DMAAC-St. Louis, next presented a program on digital image processing at DMAAC. Dr. Faintich's talk included a slide presentation illustrating some of the programs and equipment at DMAAC, and summarized the results of their efforts in digital image processing. Dr. Faintich concluded his program with an interesting film that demonstrated computer generated imagery similar to that used in the latest flight simulators for pilot training.

Dr. Martin Faintlich, DMAAC, St. Louis

Both presentations were interesting and well received by the audience.

Mr. William French, Executive Director-ASP was the final speaker for the evening. Mr. French gave a talk entitled "The Interworking of ASP." This included a slide presentation showing the offices and staff at ASP headquarters. Also shown were slides of the organizational structure of ASP and its relation to other professional organizations.

For the remainder of his program, Mr. French concentrated on COMPASS (Committee of Mapping Photogrammetry and Surveying Societies) and affiliation plans

William French, Executive Director, ASP.

for ASP-ACSM. He discussed plans for co-location of offices, joint staff meetings, joint educational and governmental affairs programs and a need for guidelines for professional practice. He stated a need for revision of national map accuracy standards, standards for large scale mapping, improvement of the certification program, and consolidation of the Regions and Section of the two societies. Questions from the audience centered around how the affiliation would affect annual dues and the effect on the structure and activities of Regions and Sections of both societies. After Mr. French had concluded his program, a straw vote was taken on whether members in the audience had made a decision on the issue. Only 50% of the members had made an firm decision.

The meeting was closed by Mr. Glenn Osick, President of the Rolla Region-ASP.

ACSM NEWS

On December 15, 1981, members of ACSM and ASP in a joint meeting heard Dale Stevens, Chief, Branch of Cartography, MCMC, discuss the Provisional Mapping Program.

Dale is a member of the committee which was established to formulate procedures and specifications for provisional (P) mapping.

The goals of this program are to expedite completion of our National large-scale coverage by 1988 and to realize considerable cost savings through changes in conventional procedures and specifications without adverse effect on the utility of the maps.

It is projected that production of P-maps can be completed with approximately 25 percent less cost than is required for standard maps. The production cycle will be accelerated, thus supplying maps to the users on a more timely basis.

The provisional-map concept would also provide basic map data for completion of the 1:100,000 derivative series by 1990 and provide the base for digitizing standard map data.

1982 ACSM Officers

Chairman Moreland announced the results of the election of officers to serve during 1982. Those elected were:

Chairman, Robert M. Lemen
1st Vice Chairman, Marshall J. Creighton
2nd Vice Chairman, Phillip D. Lampert
Secretary, Lawrence L. Jontz
Treasurer, Jeffrey L. Goldberg
Reporter, Mark C. Berg

The Board of Directors are:

Richard S. Pirtle, 3 years
George L. Loelkes, 2 years
Jeanice I. Powell, 1 year
Martin L. Moreland, 1 year
Norman L. Brown, 3 years
J. Patrick Ryan, 2 years
Robert D. Yenzer, 1 year

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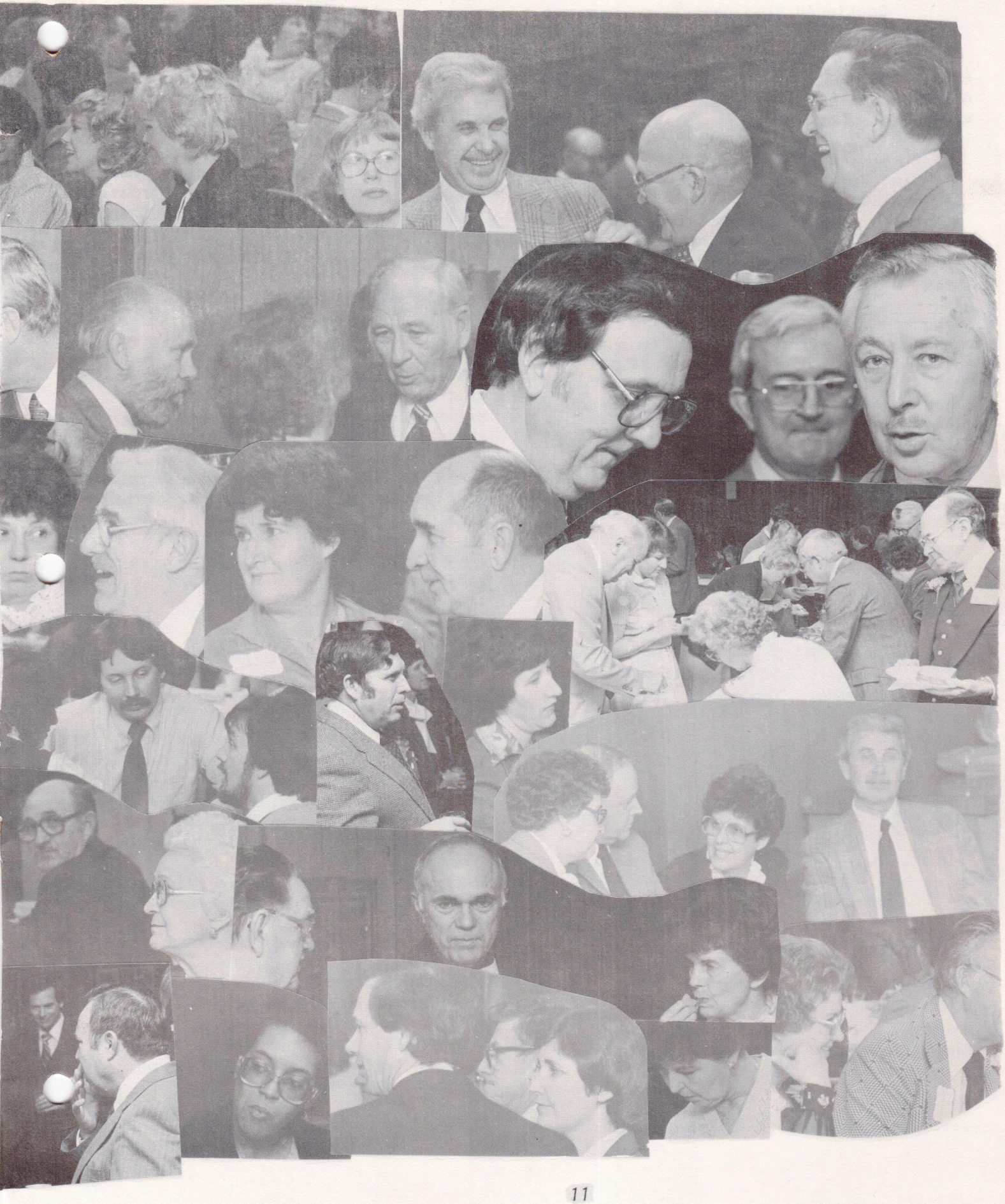
RECEPTION



Continued from page 9

At the business meeting of December 15, Glenn Osick announced the results of the elections. These were:

President -	Bill Good
Vice President-	Don Canfield
Secretary -	Jim Earl
Board members -	Juanita Wisdom
	Bob Graber

These elections were the first for this chapter. Ballots were mailed to all members within the region and as a result, the response was the largest for any election to date.

Glenn also named Al Niles to replace Don Canfield on the Board of Directors.

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If in the last few years you haven't discarded a major opinion or acquired a new one, check your pulse. You may be dead.

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RETIREMENT RECEPTION

The annual USGS retirement reception was held on Friday evening, January 22, at the Lions Den, Lions Club Park. Approximately 130 fellow employees and former retirees attended this event to honor and congratulate the 1981-82 retirees.

The evening began with an informal social hour which was spent visiting with the many friends who attended. After the social hour, MCMC Center Chief, Larry Borgerding, introduced the retirees and their spouses. Those in attendance were Wilbur and Doris Batson, Homer and Barbara Crowell, Bob and Louise Leonard, "Parky" and Mildred Parkinson, Florence and Garmel Sanders, Bob and Elizabeth Stewart.

Mr. Borgerding then addressed the group, remarking that the 15 1981-82 retirees would bring the number of MCMC retirements in the past five years to 101, with 3,225 years of total Federal service.

The former retirees present were then introduced, and the evening was concluded with a reception line for the new retirees.

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To all my friends and associates at USGS:

A few days ago, I received the benchmark and scroll commemorating my retirement from the USGS. Needless to say, I will treasure them always, as they will be a reminder of the many pleasant associations during my years with the USGS.

I also received the check, and I wish to thank all my friends who contributed to it. It will be used to enhance my memories of the years at the USGS.

Ligia and I have made our home at 2052 East Mimosa in Springfield, Missouri, and we would like to extend an invitation to all our many friends to drop in and see us any time they come our way. The door is always open.

Thanks for having known you.

Roy and Ligia Ferguson

Editor's Note:

Several years ago, the custom of sending Christmas cards to retirees was discontinued at the suggestion of our Division Chief. He instituted, instead, the practice of donations to deserving charities, in the name of the retirees, from each Division location (the contributions that otherwise would have been used for greeting cards and postage.) This year's MCMC gift went to the Gingerbread House Building Fund.

The following acknowledgement was received from the secretary of the Gingerbread House:

To employees of Mid-Continent Mapping Center:

The board of Gingerbread House sincerely appreciates your Christmas donation. The money will be put to good use in the development of the program for severely disabled children. We hope you will spread the news about Gingerbread House to friends and neighbors throughout the area to be served.

Gratefully,

Kathy Haule, Secretary
Gingerbread House
Home for the Severely Handicapped

****

IN MEMORIAM

Mr. Leo Breuer, father of David L. Breuer.

Mr. Otto Bullinger, father of Bob Bullinger.

Mr. Edwin Hardesty, father of Walter Hardesty.

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United States Geological Survey
1400 Independence Road
Rolla, Missouri 65401

Gentlepeople:

Thank you for your generous contributions to the "Christmas is LOVE" program!

I delivered baskets to several families you sponsored. The joy, excitement and gratitude was beautiful to behold. You made the holidays very special to people who otherwise would not have been able to celebrate.

I thank you, not only for them, but for me as well. These families are families I work with throughout the year. I have come to know them well. It is with great pleasure that I delivered the baskets to families with whom I've seen triumphs and defeats. Not only did you provide special holidays--you also contributed to my working relationship with these families.

I wish you could have been with me to see the happiness you made possible!

Sincerely,

Gretchen Fehler, RN
Maternal Child Health Nurse
Community Health Nurse III

OVERFLOWING

Springtime brings melting snows, refreshing rains, and flash floods. Floods occur all over the United States and can strike with alarming speed.

If you live near a river, lake or in a hilly region, know the elevation of your property. Keep an emergency kit of non-perishable food, first-aid supplies, flashlight, and a battery-powered radio on hand.

Know how to get to higher ground immediately when flash flood warning is issued. Never drive through water of unknown depth or walk through water higher than your knees. If your car stalls, abandon it and head for higher ground on foot.

MCMC RETIREES

Cyril "Cy" J. Beyers, Mid-Continent Mapping Center retired on January 8, 1982, after completing nearly 39 years of Federal service.

Mr Beyer's Federal career began with the U.S. Army in 1942, where he served until 1945. After working as a rodman for 4 mos., he accepted employment as an Engineering Aid with the US Geological Survey in 1946. Mr Beyers' career included assignments in both the Field Surveys and Cartography Branches of the Mid-Continent Mapping Center. "Cy" advanced to the position of Supervisory Cartographer in a Cartographic Compilation Unit, the position from which he retired.

Robert H. Leonard Mid-Continent Mapping Ctr., retired on January 8,1982, after completing 35 yrs. of Federal service.

Mr. Leonard's Federal career began with the U.S. Navy in 1942, where he served until 1945. After receiving a Bachelor of Science degree in Electrical Engineering from the Missouri School of Mines and Metallurgy, he joined the U.S. Geological Survey in 1950. His entire career has been with the Mid-Continent Mapping Center. Bob retired from the position of Cartographer in the Review Editing Group.

Edward F. Haas, Mid - Continent Mapping Center, retired Dec. 26, 1981, after completing 35 yrs. of Federal service.

Mr. Haas' Federal career began with the U.S. Army in 1945, where he served until 1946. After a brief period of employment in the private sector, he joined the U.S. Geological Survey as a Cartographic Draftsman in 1948. Mr. Haas served in various assignments in both the Cartography and Photogrammetry Branches of the Mid-Continent Mapping Center. Ed retired from the position of Cartographic Technician (advanced level) in a Photogrammetric Operations Section.

Walter D. "Parky" Parkinson, Mid-Continent Mapping Center, retired on December 26, 1981, after completing over 35 years of Federal service.

Parky served in the US Navy from 1944 - 1946 as an Aircrewman. He accepted employment as a Cartographic Draftsman with the US Geological Survey in 1948 and has been employed at the Mid-Continent Mapping Center his entire career, except for U.S. Army service from 1950 to 1952 with the 30th Engineer Topographic Battalion. In 1976, "Parky" advanced to the position of Assistant Chief, Br. of Cartography, the position from which he retired.

Richard A. Schwab, Mid-Continent Mapping Center, retired January 9, 1982, after completing 40 years of Federal service.

Mr. Schwab began his Federal career in 1941 as Cartographic Draftsman with the Army Map Service in Washington, D.C. He enlisted in the U.S. Marine Corps in 1943 and served honorably until 1945. He transferred to the Geological Survey, Mid-Continent Mapping Ctr., in 1948, as a Cartographic Draftsman, and has served continuously in the Branch of Cartography. Richard advanced to the poisiton of Supervisory Cartographer in an Editing Unit, the position from which he retired.

Gertrude J "Trudy" Wallace, Mid-Continent Mapping Center, retired on October 23, 1981, after completing over 36 years of Federal service.

Trudy began her Federal career in 1941 when she accepted employment as a Clerk-Stenographer at Fort Leonard Wood. After brief periods of employment as a Clerk-Typist with the Boca Raton Army Air Field (Florida), the Mo. School of Mines (UMR), and the U.S. Army and Air Force Recruiting Station in Rolla, Trudy transferred to the Mid-Continent Mapping Center as a Clerk-Typist in 1948. Except for a 3-month intra-agency transfer in 1950, she was employed in a clerical and secretarial capacity, primarily in the Geodetic Section, where she advanced to the position from which she retired.

Florence Sanders, Mid - Continent States Personnel Office, retired on December 26, 1981, after more than 31 years of service.

Florence began her Federal service at Fort Leonard Wood, MO, in 1950. In February 1955, she transferred to the U.S. Geological Survey, Water Resources Division, in Rolla. Flo moved to the Personnel Office in December of that same year, working her way up the ladder of success from an Appointment Clerk to Supervisory Personnel Assistant. In December 1977, under the Upward Mobility Program, she became a Personnel Management Specialist, the position from which she retired.

PERSONNEL ACTIONS

Scheduled Losses

Laura L. Bennett, change in work schedule to PT (32 hours/week), CT, GS-6, Br. of Field Surveys, Geodetic Section.

Homer G. Crowell, expiration of appointment, reemployed annuitant, SCT, GS-11, Br. of P&P, NCIC-M, User Services Team.

Wilbert C. Malone, expiration of appointment, reemployed annuitant, SCT, GM-13, Br. of Field Surveys, Geodetic Section.

Accessions

Liess A. Burks, Student Trainee (Carto), GS-5, Off. of Ctr. Chief, to C, GS-7, same, Carto. Trainee Grp.

Losses

Stephan W. Miller, resignation
Jerri A. Montgomery, resignation
S. Brent Jump, termination of appointment
Vickie L. Rhodes, " "
Wiley R. Whitehorn," "
Florence Sanders, opt. retirement
Walt Parkinson, " "
Bob Leonard, " "
Dick Schwab, " "
Cy Beyers, " "
Ed Haas, " "

Continued on page 16

Continued from page 15

Promotions

James L. Flaherty, SC, GS-11, Br. of P&P, Off. of Br. Chief, to same, GS-12.

William Conover III, C, GS-7, Off. of Ctr. Chief, Carto. Trainee Grp., to GS-9, same.

Promotions in other Centers

Stanley E. Mattingly, SC, GS-14, EMC, C[illegible] Operations Br., Off. of Br. Chf.

Gary W. North, Asst. Division Chief for Information & Data Services, ES-1, Reston, VA.

Lowell E. Starr, Asst. Division Chief for Research, ES-4, Reston, VA.

Change to Lower Grade

Priscilla J. Evans, GS-6, Br. of Carto., Off. of Br. Chief, to Program Analyst (Trainee), GS-5, Br. of P&P, Program Control Section.

Allen V. Giebink, SC, GS-12, Br. of FS, Geodetic Section, to C, GS-11, same.

Reassignment

Carla S. Brookshire, CA (Trainee), GS-4, Br. of Photo., Photogrammetric Operations Section, to CA, GS-4 same, (completion of upward mobility training).

Jerry D. French, C, GS-11, Off. of Ctr. Chief, CTG, to same, Branch of Photo., Photogrammetric Operations Section.

Charles K. Holdaway, C, GS-11, Br. of Photo., Photo. Operations Section, to same, Br. of P&P, Program Control.

Fred W Krueger, C, GS-9, Br. of FS, Field District, to same, Geodetic Section.

Norman E. Ragan, [illegible]S-11, Off. of Ctr. Ch[illegible] Carto. Tr[illegible]rp., to same, Br. of Photo., Photo. [illegible]tions Section.

Jack D. Turner, C, GS-11, Off. of Ctr. Chief, Carto. Trainee Grp., to same, Br. of Carto., Carto. Section A, Editing Unit

Detail NTE 120 days

Rita R. Arneson, ST, GS-4, Br. of FS, Field District, to same, FSIS.

Gary W. McKeown, SC, GS-12, Br. of Photo. Photogrammetric Operations Section, to same, Off. of Ctr. Chief, TO.

Robert E. Rinehart, CT, GS-7, Br. of Field Surveys, Field District, to same, Br. of Photo., Photo. Operations Section.

Victor P. Taipale, CT, GS-7, Br. of Field Surveys, Field District, to same, Br. of Photo., Photogrammetric Operations Section.

Termination of 120-day detail

Myron T. Dake, CT, GS-5, Br. of Photo., Photogrammetric Operations Section, to same, Analysis & Manuscript Prep. Unit.

Richard S. Pirtle, CT, GS-11, Br. of FS, Field District, to same, Br. of Carto, Carto. Section, Editing Unit.

Jack D. Turner, C, GS-11, Br. of FS, Field District, to same, Off. of Ctr. Chief, Carto. Trainee Grp.

Detail NTE 60 days

Michael D. Jones, C, GS-11, Br. of Carto., Cartography Section "B", Editing Unit, to SC, GS-11, Off. of Ctr. Chief.

Termination of 60-day detail

Robert M. Lemen, SC, GS-11, Off. of Ctr. Chief, to C, GS-11, Br. of Carto., Carto. Section "B", Editing Unit.

Samuel D. Turner, Photographer (S&T) GS-9 Br. of Carto., Photoimagery Section, to Photographer (S&T), GS-8, Br. of Photo., Photogrammetric Operations Section, Photoproducts Unit.

Conversion to Career-Conditional Appointment (from VRA)

Jerry L. Noordhoek, ST, GS-5, Br. of FS, Field District.

Leave without pay

Earl E. Spurgeon, Student Trainee (Computer Science), GS-2, Off. of Ctr. Chief, TO, 1/14--4/2/82.

Return to Duty from LWOP
Shelley L. Hood, CA, GS-4, Br. of Photo., Photo. Operations Section.

AWARDS

Length of Service
Maude A. Decker, 30 years
William E. Ragan, 30 years
John E. Smith, 30 years
George G. Cannell, 20 years.
Donald A. Giesler, 20 years.
Jane A. Riley, 20 years.
Robert R. Rydeen, 20 years.
Sharon A. Sewell, 20 years.
Timothy R. Thompson, 10 years.
Richard D. Vogeler, 10 years.

Incentive Awards
Lynn L. Allison
Lindall Baker
Carol J. Willeford

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SAFE BOATING REMINDERS

The National Safety Council urges all boaters, particularly the novice and occasional boater who operates a small boat on only a few weekends of the year, to consider his family's safety and to be prepared for the unexpected by taking advantage of boating safety courses offered by governmental and private organizations.

National Safety Council urges all boaters to:

1) Check and heed weather forecasts before setting off;

2) Advise family or friends staying ashore of your itinerary;

3) Make sure your boat is sound, fully equipped, and suitable for the planned trip;

4) Avoid overloading or overpowering your boat;

5) Take enough flotation devices for all occupants, and make sure at least the non-swimmers and children wear them at all times;

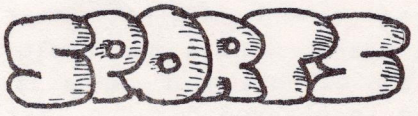
6) Make sure a second member of the party can operate the boat and knows the area of operation;

7) Be careful when changing positions in a small boat;

8) Keep a lookout and avoid swimming areas;

9) Save "Happy Hour" celebrations for the homeport mooring.

10) Stick to your itinerary.



BOWLING NEWS
by Sherry Von Klemen
Sec.-Treas.

As the second half of bowling draws to its end, with two nights of regular bowling remaining, the Bombers have clinched first place for this half. This means that on March 18 there will be a roll-off between the first-half winners - Bennet's Boys, consisting of Dave Bennett - Capt., Jim Koons, Merle Southern, Dannie Bolin, Pat Ryan, and Charlie Walters; and the second-half winners - Bombers, consisting of Dwayne Sawyer - Capt., Pat Hensley, Ed Sands, Joe Guidicini, John Powell, and Grace Prouty. Also on March 18, we will have Jackpot Night for the other bowlers.

At this time, with two nights left to bowl, our individual awards are being held by the following:

High Average
Don Giesler 175.3
Pam Malam 149.5

High Series Scratch
Eddie Leonard 625
Candi Leake 519

High Game Scratch
Eddie Schwertz 240
Eleanor Bolin 199

High Series Handicap
Karl Eissinger 713
Val Creighton 669

High Game Handicap
Joe Guidicini 266
Linda Wagner 245

SPORTS

The 1982 USGS Golf Committee is currently developing plans for this season's play. This year's committee consists of Earl Coleman, Gene Cook, Dwayne Sawyer, and Allen Giebink. The Monday night team scramble will again be played at Oak Meadow Country Club. In addition to league play, a good deal of interest in [illegible]al play tournaments has been expressed. The committee is presently looking into the possibility of kicking off the season with a medal play tournament. The selection of captains and team drafting is planned for the last half of March.

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MAPS PUBLISHED IN DECEMBER 1981

NEW MAPS

IOWA:
ARISPE (TINGLEY NW)
DAVIS CITY (LAMONI NE)
ELLSTON (TINGLEY SE)
LACELLE (GRAND RIVER NE)
LAMONI NORTH (LAMONI NW)
LAMONI SOUTH (LAMONI SW)
MALOY (BLOCKTON NW)
TINGLEY NE (SAME)

LOUISIANA:
PLAIN DEALING (PLAIN DEALING NW)

MISSOURI:
AKRON, MO-IA (LAMONI SE)
DOSS (STONE HILL SW)
HOWES MILL SPRING (STONE HILL NE)
PAWNEE, MO-IA (MOUNT AYR SE)
SHORT BEND (STONE HILL NW)

NEBRASKA:
BRUNER LAKE (SYBRANT 4NW

NORTH DAKOTA:
LOSTWOOD (STANLEY NW)
NEW TOWN (NEW TOWN NW)
PARSHALL NE (SAME)
RAT LAKE (WHITE EARTH 4NW)
RAT LAKE SE (WHITE EARTH 4SE)
STANLEY SE (PR-81)

OKLAHOMA :
EAGLETOWN (BROKEN BOW SE)
HEE CREEK (SMITHVILLE SW)
TABLERVILLE (BROKEN BOW NE)

1:25,000 SCALE (METRIC):
MARTIN, SD

1:100,000 SCALE:
ELLIS COUNTY, KS
MITCHELL COUNTY, KS
RUSSELL COUNTY KS

MAPS PUBLISHED IN JANUARY 1982

ILLINOIS:
BLOOMINGTON EAST (LE ROY NW)
BLOOMINGTON WEST (MC LEAN NE)
GRIDLEY (NORMAL NW)
LE ROY (SAME)
MERNA (NORMAL SE)
NORMAL EAST (NORMAL SW)

IOWA:
CRESTON EAST (CRESTON SE)
GRAND RIVER (GRAND RIVER SW)
HOPEVILLE (GRAND RIVER NW)
VAN WERT (GRAND RIVER SE)

KANSAS:
WATHENA, KS-MO (ST. JOSEPH SW)

LOUISIANA:
COTTON VALLEY (SAREPTA SW)

MICHIGAN:
ALLEGAN (ALLEGAN SE)
HAMILTON EAST (ALLEGAN NW)
MILLGROVE (ALLEGAN SW)

MINNESOTA:
BARNESVILLE SW (SAME)
CAMPBELL (CAMPBELL SW)
CAMPBELL NE (SAME)
DORAN (CAMPBELL NW)
ENSIGN LAKE EAST (ENSIGN LAKE SE)
ENSIGN LAKE WEST (ENSIGN LAKE SW)
EVERDELL (ROTHSAY SW)
FOXHOME (ROTHSAY SE)
HAMEL (ROCKFORD SE)
LAKE INSULA (FOREST CENTER NE)
LAWNDALE (BARNESVILLE SE)
MAYER (WACONIA NW)
ROCKFORD (ROCKFORD SW)
ROGERS (ROCKFORD NE)
ROTHSAY (ROTHSAY NE)
ROTHSAY NW (SAME)
ST. MICHAEL (ROCKFORD NW)
SNOWBANK LAKE (FOREST CENTER NW)

MISSOURI:
ANUTT (SALEM NW)
DILLON (MARAMEC SPRING NW)
FALLS, MO-KS (DEARBORN NW)
MARAMEC SPRING (MARAMEC SPRING NE)
NEWBURG (ROLLA NW)
ROLLA (ROLLA NE)
ST. JOSEPH NORTH, MO-KS (ST JOSEPH SE)
ST. JOSEPH SOUTH, MO-KS (DEARBORN NE)

NORTH DAKOTA:
CARLYLE, MT-ND (WIBAUX 4NE)
BADLAND DRAW, MT-ND (BAKER 1NE)
BOTTINEAU (PR-81)
DENBIGH (PR-81)
NOONAN (PR-81)
OLLIE, MT-ND (WIBAUX 4SE)
SCOLE SCHOOL, MT-ND (BAKER 4SE)

OKLAHOMA:
TERRAL, OK-TX (PR-81)

SOUTH DAKOTA:
ARLINGTON (PR-81)
BROOKINGS (PR-81)
BROOKINGS NE (PR-81)
DEMSTER (PR-81)
ESTELLINE NE (PR-81)
MEDARY (PR-81)
RUTLAND SE (PR-81)

1:100,000 SCALE COUNTY MAPS:
BARTON COUNTY, KS
CHEROKEE COUNTY, KS
DOUGLAS COUNTY, KS
GLENDIVE, MT-ND

1:100,000 SCALE TOPO MAPS:
BAKER, MT-ND
BURLINGTON, CO-KS
SIDNEY, MT-ND
WALL, SD

NEW MAPS RECEIVED IN FEBRUARY 1982

ARKANSAS:
EMPIRE, AR-LA (EUDORA SW)
EUDORA NORTH (EUDORA NE)
EUDORA NW (EUDORA NW)
JEROME (LAKE VILLAGE NW)
LAKE VILLAGE (LAKE VILLAGE SE)
MACON LAKE (LAKE VILLAGE NE)
MONTROSE (LAKE VILLAGE SW

IOWA:
LIME SPRINGS NW (SAME)
MOUNT AYR (MOUNT AYR NW)
SAUDE (LAWLER NW)

MISSOURI:
BROWNS (PR-81)
COLUMBIA (PR-81)
CONCORDIA (PR-81)
CRAIG (CRAIG NE)
ELM (PR-81)
FLETCHER (DE SOTO NW)
GUTHRIE (PR-81)
HARTSBURG (PR-81)
KNOB NOSTER (PR-81)
KNOB NOSTER NW (PR-81)
NEW POINT (MAITLAND SE)
RHYSE (SALEM SW)
SALEM (SALEM NE)
TIFF (DE SOTO SW)
VINELAND (DE SOTO SE)

NEBRASKA:
MILES RANCH (O'NEILL 3SE)

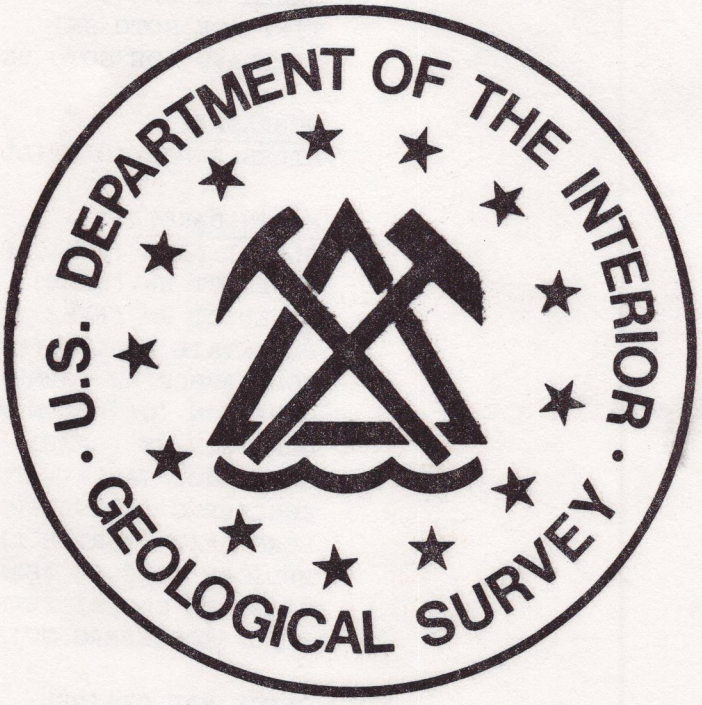
NORTH DAKOTA:
ALKALI LAKE (PELICAN LAKE NW)
BENEDICT NW (SAME)
BENEDICT SW (SAME)
BLACKTAIL COULEE (KONGSBERG NW)
COLEHARBOR NW (SAME)
GARRISON (GARRISON NW)
GARRISON NE (SAME)
HORSESHOE VALLEY (TURTLE LAKE NW)
KONGSBERG (KONGSBERG SE)
LONG LAKE (TURTLE LAKE NE)
PELICAN LAKE SE (SAME)
ROBINSON COULEE (BENEDICT NE)
RUSO (KONGSBERG SW)

CHECK MAP DESIRED:

NAME _____

BRANCH/MAIL STOP _____

Maps published during December thru February are listed above. An employee who actually worked on any of the maps listed may obtain a complimentary copy by signing and submitting this sheet with quadrangle(s) checked to NCIC-M by April 15, 1982.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GEOLOGICAL SURVEY